REMARKS

This paper is submitted in response to the Final Office Action mailed October 15, 2002. Claims 14-22 are pending. Claim 14 has been amended to more particularly define the invention. Applicant submits that no new matter has been introduced by amendment to the claims and support for the amendments is found in the specification and claims as originally filed.

Amended claim 14 appears in the preceding "IN THE CLAIMS" section. Attached hereto is a marked-up version of the changes made to this section. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE" and is only included for the Examiner's convenience. Should any discrepancies be discovered, the version presented in the preceding "IN THE CLAIMS" section shall take precedence.

35 U.S.C. § 102(b) Rejection

The Examiner has rejected Claims 14-16, and 18-20 under 35 U.S.C. §102(b) as being anticipated by JP 09302146 taken in view of Miyazaki et al. (U.S. 6,109,320) and Agostini et al. (U.S. 6,160,047). The Examiner alleges that JP 09302146 discloses a tire which has a bead filler comprising 100 parts diene based rubber, predominantly natural rubber, 20-150 parts silica which has specific surface area of 210-300m^2/g, 0-50 parts carbon black which has a specific surface area of 5-150 m^2/g, and 5-25% based on the amount of silica, i.e. 1-37.5 parts, of silane coupling agent.

The Examiner further argues that JP 09302146 discloses nonpreferred ranges which overlap with the range presently claimed. For example, the Examiner alleges that

silica may fall in the range of 20-150 parts and carbon black in the range of 0-50 parts. As a result, the Examine concludes that silica plus carbon black may be in the range of 20-200 parts. The Examiner alleges that this range overlaps with the presently claimed ranges.

Applicant respectfully traverses this rejection.

For a claim to be anticipated by a reference, "there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Gannett, Inc.*, 927 F.2d 1565 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Moreover, a claim is anticipated and fails to meet the requirement of §102 only when a single prior art reference discloses each and every element of the claimed invention. *Lewmar Marine, Inc. v. Barient*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987), emphasis added.

The present invention discloses an internal filler mix designed to provide high mechanical cohesion and low hysteresis for the bottom zone of a pneumatic tire by using comparatively low quantities of filler. The composition comprises a reinforcing filler that is selected from a silica or a blend of silica and carbon black. When silica is used as the only component of the filler, it must be present in an amount of between 15 phr and 40 phr (see amended claim 14 (i)). When a combination of silica and carbon black is used as the reinforcing filler, the silica is in an amount greater than or equal to 15 phr and less than 50 phr (see amended claim 14(ii)). Therefore, the total amount of reinforcing filler claimed, whether or not carbon black is added, must be present in an amount less than 50 phr.

JP 09302146 discloses a bead filler composition which is specifically meant to exhibit a high hardness for durability and fatigue resistance and requires high amounts of filler. The compositions disclosed in JP 09302146 consistently contain more than 50 parts of reinforcing filler and may vary up to 150 parts. Paragraph [0012] of English translation of JP 09302146 states that only if "the total amount of carbon black and a silica exceeds 150 weight section," would there be a "fall of the endurance by increase of calorific value." Furthermore, all disclosed examples in Tables 1 and 2 vary the amount of total filler from between 80 to 150 phr, which significantly exceeds the presently claimed amounts of total filler (50 phr). Thus, JP 09302146 fails to teach an elastomeric internal filler mix comprising a reinforcing filler selected from among a silica and a blend of silica and carbon black, wherein the reinforcing filler is present in an amount less than 50 phr. Thus, JP 09302146 fails to teach each and every element of the present invention.

In addition, claim 1 of JP 09302146 clearly recites ranges that do not overlap with the present invention. JP 09302146 discloses a rubber composition comprising blend of "carbon black 0-50 weight section, and the silica 20-150 weight section to the diene rubber 100 weight section...the total amount of carbon black and silica in the 50-150 section" (Claim 1, lines 5-7; emphasis added). For the present rejection, the Examiner has merely added the individual proposed ranges for carbon black (0-50 parts) and silica (20-150 parts) to arrive at the 20-200 parts carbon black plus silica range. However, claim 1 expressly states that carbon black and silica, when used in combination, is in the range of 50-150 parts and **not** 20-200 parts, as alleged by the Examiner. The lower range presented for silica (i.e. 20-50 parts) is only used in combination with carbon black, as

shown in Tables 1 and 2. Thus, JP 09302146 does not present overlapping ranges for use of carbon black and silica in combination in the reinforcing filler.

For all the foregoing reasons, applicant submits that JP 09302146 cannot anticipate the present invention and respectfully requests the withdrawal of the rejection.

35 U.S.C. § 103(a) Rejections

The Examiner has rejected claims 21 and 22 under 35 U.S.C. §103(a) as being unpatentable over JP09302146 in view of Fukahori et al. (US Patent No. 5,844,050). The Examiner alleges that Fukahori discloses a diene elastomer comprising a majority of cis-1,4-bonds, which is branched using divinylbenzene in order to produce a composition with good abrasion resistance, fatigue resistance and tensile properties. The Examiner alleges that it would be obvious to use the divinylbenzene branching agent in elastomeric filler mix of JP09302146 in order to produce a branched elastomer and thus a mix with good abrasion resistance, fatigue resistance and tensile properties to arrive at the claimed invention. The Examiner has deemed the applicant's argument regarding the use of compositions for external parts of the tire to be unpersuasive.

The Examiner has rejected claim 17 under 35 U.S.C. §103(a) as being unpatentable over JP09302146 in view of Takeichi et al. (US Patent 6,008,295). The Examiner also alleges that Takeichi et al. teaches the use of a silicon or tin halide-modified diene elastomer in order to produce a composition with superior fracture properties and low hysteresis loss. The Examiner argues that Takeichi et al. is a reasonably pertinent reference. The Examiner alleges that it would have been obvious to

one of ordinary skill in the art to use this diene elastomer in the elastomeric filler mix of JP09302146 to produce the mix of the claimed invention.

Applicant respectfully disagrees.

To establish a prime facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings Second, there must be a reasonable expectation of success. Finally, the prior art reference or references when combined must teach or suggest all the claim limitations. Both the suggestion and a reasonable expectation of success must be present in the references themselves. See M.P.E.P. § 2143 et seq., emphasis added.

As stated above, there is no teaching or suggestion in JP 09302146 of an elastomeric internal filler mix comprising a reinforcing filler selected from among a silica and a blend of silica and carbon black, wherein the reinforcing filler is present in an amount less than 50 phr. Thus, JP 09302146 fails to teach each and every required element of the presently claimed invention.

In addition, JP 09302146 teaches away from the use of low quantities of reinforcing fillers. The cited reference discloses means for imparting to a rubber composition properties of high rigidity and hardness by the addition of high amounts of filler. Preferably, JP 09302146 recommends that "carbon black to blend exceeds 50 weight section, a silica exceeds 150 weight section or the total amount of carbon black and silica exceeds 150 weight section," to achieve a desired "fall of the endurance by

increase of calorific value and a fall of the rolling resistance by increase for tan delta" (JP 09302146, paragraph [0012]).

Fukahori relates to a modified conjugated diene polymer and its use as a rubber composition in tires to impart improved abrasion resistance, fatigue resistance, tensile and rebound resilience properties. Fukahori fails to teach an elastomeric internal filler mix comprising a reinforcing filler selected from among a silica and a blend of silica and carbon black, wherein the reinforcing filler is present in an amount less than 50 phr. In addition, there is no suggestion or motivation to combine JP 09302146 with Fukahori to obtain the presently claimed invention.

Takeichi et al. relates to a rubber composition for a tire tread to produce a tire with improved rolling resistance, wet traction and handling and traction in snow and ice. Takeichi et al. fails to teach an elastomeric internal filler mix comprising a reinforcing filler selected from among a silica and a blend of silica and carbon black, wherein the reinforcing filler is present in an amount less than 50 phr. In addition, there is no suggestion or motivation to combine JP 09302146 with Takeichi et al. to obtain the presently claimed invention.

Thus, the cited references alone, or in combination, fail to teach or suggest each and every element of the presently claimed invention. Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. § 103(a). A Notice of Allowance is respectfully requested.

CONCLUSION

Applicant requests a two month extension of time and enclose herewith the required fee pursuant to 37 C.F.R. § 1.17(a)(2). Should any additional fees be required in connection with this response, the Commissioner is hereby authorized to charge Deposit Account Number 02-4377. Duplicate copies of this page are enclosed.

Respectfully submitted,

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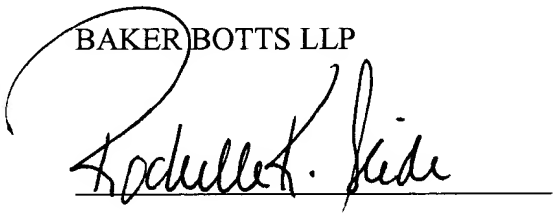

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claim 14 has been **amended** as follows:

14. (Amended) A pneumatic tire comprising in its bottom zone an elastomeric internal filler mix in the form of a profiled member which is located axially to the outside of the upturn of the carcass reinforcement, or a reinforcement profile for the beads of the tire which is located radially above the bead wire and adjacent to said bead wire, said elastomeric internal filler mix comprising a cohesive and low-hysteretic rubber composition wherein the elastomeric matrix comprises more than 70 phr of natural rubber or synthetic polyisoprene having double bonds, the majority of which are cis-1,4 bonds, and a reinforcing filler selected from among:

(i) a white filler of the silica and/or alumina type comprising SiOH and/or AlOH surface functions, which is selected from among the group consisting of precipitated or pyrogenic silicas, aluminas, aluminosilicates and carbon blacks modified during or after synthesis to have SiOH or AlOH functions at their surface, wherein said white filler has a specific area of between 30 and 260 m^2/g and is present in an amount of between [about] 15 phr and 40 phr, and

(ii) a blend of carbon black having a BET specific surface area of between 30 and 160 m^2/g , and the white filler of (i), [in which the total amount of filler is between about 15 phr and 50 phr,] wherein the amount of white filler is greater than or equal to the amount of carbon black in phr minus 5 phr, wherein said blend is in an amount greater than or equal to 15 phr and less than 50 phr,

wherein the reinforcing filler is present in an amount less than 50 phr.

CONCLUSION

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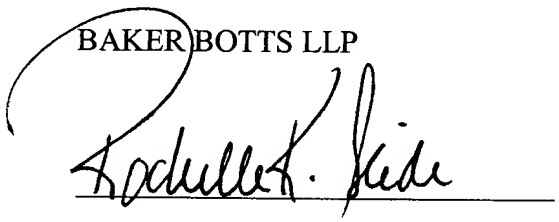

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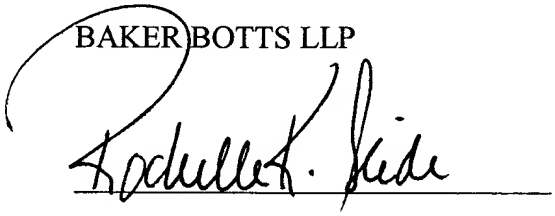

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